1957

NOT FOR PUBLICATION

# APPRAISAL SURVEY

## Crystal Bay Area, Lake Tahoe, Nevada

By

R. I. Washburn
R. C. Hall
B. E. Wickman

Crystal Bay, the subject of this appraisal, includes a relatively small basin of privately-owned timber at the north end of Lake Tahoe on the Nevada side of the lake. Timber growth in the basin is predominantly second growth ponderosa and Jeffrey pine with lesser amounts of white fir, sugar pine, and incense cedar.

About 1949 a noticable increase in bark beetle populations occurred in this timber. Since that time losses of varying significance have occurred. A reconnaissance survey in the fall of 1956[1/] revealed that the infestation had increased both in area and intensity.

On April 22 and 23 of this year an appraisal of the bark beetle infestation was conducted by R. C. Hall and B. E. Wickman of the California Station and R. I. Washburn of the Intermountain Station. During the period for at least part of the examinations the entomologists were accompanied by Ivan Sack, Superintendent, Toiyabe National Forest; Victor Goodwin, Ranger, Toiyabe National Forest; George Zappettini, Assistant State Forester and Fire Warden, and his assistant, Ben Fenton, An aerial survey of the area was conducted the morning of the 22nd by Boyd Wickman and other California Station observers during which all centers of red-top trees located were plotted on a map. The observers did not detect any centers of "build up" in any of the areas adjoining the Crystal Bay basin.

Following aerial inspection, ground observations were made of the area. In examination of the two large groups, near the highway, that have persisted for several years, not a single tree heavily infested with mountain pine beetle could be found. Trees that had been successfully attacked by the mountain pine beetle contained very little brood. Many recent "pitchout" attacks were found scattered throughout the area immediately surrounding these two large groups. Only an occasional tree was found that contained any active brood of western pine beetle.

---

1/ B. E. Wickman, Forest Insect Conditions, Crystal Bay, Lake Tahoe, Toiyabe National Forest. Reconnaissance Survey, Sept. 1956. California Forest & Range Exp. Station.

In each case the tree had been heavily woodpecked. Much heavy woodpecker activity was found throughout this small area surrounding the two large groups.

Examination of the rest of the area disclosed groups of ponderosa pine infested with mountain pine beetle. From a sampling survey it was determined that there were roughly 4,000 infested trees on less than 4,000 acres, (the approximate area of the pine timber in the basin). The infested trees appear primarily as groups ranging in size from four to slightly over one hundred infested trees per group. Most all of the currently infested trees are less than 16" d.b.h. with most of them falling within 8 to 12" d.b.h. The brood within the infested trees varied considerably and ranged from extremely light to moderately heavy.

The over-all situation as determined by the examination indicates that a rapid increase in mountain pine beetle population with associated increased damage can be expected next year. Prediction of the course of outbreaks is risky at times but if this outbreak continues for several years, as appears likely, the depletion of stems within the stand would be extensive. At the present time there seems to be no effects upon timber outside of the Crystal Bay basin. Past experience has shown that such effects may follow if outbreaks continue to intensify.

With the risk of spread to other timber a distinct possibility, since this outbreak has taken a definite upward trend during the past year, it would be well to consider direct control. Methods of chemical treatment are available and logging of infested trees before beetle emergence could be employed in part of the area.